## CLAIMS

What is claimed is:

1.      A method for adaptive encoding of digital multimedia information, the method comprising: measuring link parameters associated with a communication link (135) between a sender (160) and a receiver (130); determining an available transmission rate of the communication link (135) based on the measured link parameters; calculating a maximum encoding rate of the digital multimedia information based on the available transmission rate; and if the encoding rate of the digital multimedia information exceeds the calculated maximum encoding rate, adapting the encoding of the digital multimedia information to conform the encoding rate of the digital multimedia information to the calculated maximum encoding rate.

2.      The method of claim 1, wherein the step of measuring comprises measuring at least one of a received signal strength, a bit error rate and a rate of received acknowledgement signals.

3.      The method of claim 1, wherein the step of calculating comprises dividing the available transmission rate by a predetermined overhead factor.

4.      The method of claim 1, wherein the step of adapting comprises compressing the digital multimedia information such that the required transmission rate of the compressed digital multimedia information is less than the calculated maximum encoding rate.

5.      The method of claim 1, wherein the digital multimedia information comprises a sequence of frames, and wherein step of adapting comprises compressing selected frames within the frame sequence such that an average required transmission rate for the frame sequence is less than the calculated maximum encoding rate.

6.      The method of claim 5, wherein frames within the frame sequence having a lower entropy are compressed at a higher compression ratio than frames having a higher entropy.

7.      The method of claim 5, wherein the step of compressing comprises deleting higher frequency components within the selected frames.

8.      The method of claim 5, wherein the step of compressing comprises mapping values within the selected frames to corresponding values having a coarser quantization.

9. The method of claim 5, wherein frames within the frame sequence include I-frames and B-frames, and wherein the step of compressing comprises deleting the I-frames within the selected frames.

10. The method of claim 1, wherein the digital multimedia information comprises a sequence of frames compressed at a first compression ratio, and wherein the step of adapting comprises: deleting higher frequency components for a first set of frames within the frame sequence such that an average required transmission rate for the first frame sequence is less than the calculated maximum encoding rate; decompressing a second set of frames within the frame sequence; and re-compressing the second set of frames at a second compression ratio such that the required transmission rate of the re-compressed digital multimedia information is less than the calculated maximum encoding rate.

11. A system for adaptive encoding of digital multimedia information, the system comprising: a processor (220); and a memory unit (240), operably coupled to the processor (220), for storing instructions which when executed by the processor cause the processor to operate so as to: measure link parameters associated with a communication link (135) between a sender (160) and a receiver (130); determine an available transmission rate of the communication link (135) based on the measured link parameters; calculate a maximum encoding rate of the digital multimedia information based on the available transmission rate; and if the encoding rate of the digital multimedia information exceeds the calculated maximum encoding rate, adapt the encoding of the digital multimedia information to conform the encoding rate of the digital multimedia information to the calculated maximum encoding rate.

12. The system of claim 11, wherein the measured link parameters comprise at least one of a received signal strength, a bit error rate and a rate of received acknowledgement signals.

13. The system of claim 11, wherein the calculated maximum encoding rate comprises the available transmission rate divided by a predetermined overhead factor.

14. The system of claim 11, wherein adaptation of the encoding of the digital multimedia information is performed by compressing the digital multimedia information such that the required transmission rate of the compressed digital multimedia information is less than the calculated maximum encoding rate.

15. The system of claim 11, wherein the digital multimedia information comprises a sequence of frames, and wherein adaptation of the encoding of the digital

multimedia information is performed by compressing selected frames within the frame sequence such that an average required transmission rate for the frame sequence is less than the calculated maximum encoding rate.

16. The system of claim 15, wherein frames within the frame sequence having a lower entropy are compressed at a higher compression ratio than frames having a higher entropy.

17. The system of claim 15, wherein the compression of the selected frames is performed by deleting higher frequency components within the selected frames.

18. The system of claim 15, wherein the compression of the selected frames is performed by mapping values within the selected frames to corresponding values having a coarser quantization.

19. The system of claim 15, wherein frames within the frame sequence include I-frames and B-frames, and wherein the compression of the selected frames is performed by deleting the I-frames within the selected frames.

20. The system of claim 11, wherein the digital multimedia information comprises a sequence of frames compressed at a first compression ratio, and wherein adaptation of the encoding of the digital multimedia information is performed by: deleting higher frequency components for a first set of frames within the frame sequence such that an average required transmission rate for the first frame sequence is less than the calculated maximum encoding rate; decompressing a second set of frames within the frame sequence; and re-compressing the second set of frames at a second compression ratio such that the required transmission rate of the re-compressed digital multimedia information is less than the calculated maximum encoding rate.